



PROGRAMME
BOOK

SECOND
SCIENTIFIC CONFERENCE
OF
IRAQI ATOMIC ENERGY
COMMISSION

المؤتمر العلمي الثاني
لهيأة الطاقة الذرية
العراقية
البرنامج العلمي
من 21 إلى 23 نوفمبر
1989م
بغداد، العراق

NOVEMBER 21-23, 1989
BAGHDAD , IRAQ

SECOND SCIENTIFIC CONFERENCE
OF THE
IRAQI ATOMIC ENERGY COMMISSION

P R O G R A M M E

مجلس نواب
الجمهورية



BAGHDAD
THE REPUBLIC OF IRAQ
NOV. 21-23, 1989
BABYLON OBEROI HOTEL

CONTENTS

Organizing Committee	1
General Conference Programme.....	2
General Scientific Programme.....	5

Scientific Sessions (Oral and Poster)

Plant Breeding	7
Plant Pathology	12
Plant Physiology	16
Soil	18
Entomology	21
Microbiology and Nitrogen Fixation	26
Radiation Biology	29
Molecular Biology	31
Food Preservation	34
Ecology and Nuclear Installation	37
Radiation Protection	39
Dosimetry	41
Radionuclides Transfer and Modeling.....	43
Radioimmunoassay	44
Radiopharmaceuticals	47
Industrial Applications	52

Organizing Committee

<i>Dr. Ghassan H. Al-Khateeb</i>	<i>Chairman</i>
<i>Dr. Hussain F. Alrubeai</i>	<i>Member</i>
<i>Dr. Reyad S. Kamei</i>	<i>Member</i>
<i>Dr. Khazal K. Al-Janabi</i>	<i>Member</i>
<i>Dr. Ibrahim Kh. Al- Haddad</i>	<i>Member</i>
<i>Dr. Khalid K. Al-Bayatti</i>	<i>Member</i>

المجلس الوطني العراقي

General Conference

Programme

Monday November 20, 1989

4:00 - 8:00 pm Registration - Babylon Hotel

Tuesday November 21, 1989

10:00 - noon Opening Ceremony

- Verses from The Holy Quran*
- The Representative of His Excellency SADDAM HUSSEIN , the President of the Republic of Iraq Addressing the Conference*
- The Chairman of the Organizing Committee Dr. GHASSAN H. AL-KHATEEB Addressing the Conference*
- Break*

11:00 - noon Lectures

- Mr. NORAMLY BIN MUSLIM : The I A E A Technical Co - operation Programme . (Deputy Director General, I A E A , Vienna) .
- Prof. L.E.LaCHANCE : Nuclear Techniques in Food, Agriculture and Biotechnology. (FAO/IAEA, Vienna) .

12:00 - 2:00 Registration - Babylon Hotel .

2:00 - 3:30 Scientific Sessions

3:45 Visit to The Unknown Soldier and The Martyr Monuments

8:00 pm Official Reception - Gilgamish Hall

Wednesday Nov. 22, 1989

9:00 -10:00 am Scientific Sessions

10:00 -10:30 am Coffee Break

10:30 - noon Scientific Sessions

2:00 - 3:30 Scientific Sessions

3:30 - 4:00 Coffee Break

4:00 - 5:00 Scientific Sessions

8:00 pm Banquet - Gilgamish Hall

Thursday Nov. 23, 1989

9:00 - 10:00 am Scientific Sessions
10:00 - 10:30 am Coffee Break
10:30am - noon Scientific Sessions
2:00 - 3:30 pm Scientific Sessions
3:30 - 4:00 pm Coffee Break
5:00 pm Sight Seeing Tour of Baghdad

Friday November 24, 1989

9:30 am Visit to the Historical City of Babylon

GENERAL SCIENTIFIC PROGRAMME

Tuesday Nov. 21, 1989

Oral Presentations

Quiet Saloon	Excutive Meeting Room	Conference Room	Sabar Hall	Gilgamish Hall
2:00 - 3:30 PM Food Preservation	2:00 - 3:30 PM Radiation Biology	2:00 - 3:30 PM Entomology	2:00 - 3:30 PM Radiopharmaceuticals	2:00 - 3:30 PM Plant Breeding

Wednesday Nov. 22, 1989

9:00 - 10:00 AM Radionuclide Transfer and Modeling	9:00 - 10:00 AM Microbiology and N ₂ Fixation	9:00 - 10:00 AM Entomology	9:00 - 10:00 AM Radioimmunoassay	9:00 - 10:00 AM Plant Breeding
Break	Break	Break	Break	Break
10:30 - Noon Radionuclide Transfer and Modeling	10:30 - Noon Microbiology and N ₂ Fixation	10:30 - Noon Entomology	10:30 - Noon Radioimmunoassay	10:30 - Noon Plant Breeding
2:00 - 3:30 PM Dosimetry	2:00 - 3:30 PM Soil Science	2:00 - 3:30 PM Plant Pathology	2:00 - 3:30 PM Radiopharmaceuticals	
Break	Break	Break	Break	
4:00 - 5:00 PM Dosimetry	4:00 - 5:00 PM Molecular Biology	4:00 - 5:00 PM Plant Pathology	4:00 - 5:00 PM Radiopharmaceuticals	

Thursday Nov. 23, 1989

Quiet Saloon	Excutive Meeting	Conference Room	Sabar Hall	Gilgamish Hall
9:00 - 10:00 AM Plant Physiology	9:00 - 10:00 AM Soil Science	9:00 - 10:00 AM Radiation Protection	9:00 - 10:00 AM Molecular Biology	9:00 - 10:00 AM Radiopharmaceuticals
Break 10:30 - Noon Plant Physiology	Break 10:30 - Noon Ecology and Nuclear Installation	Break 10:30 - Noon Radiation Protection	Break 10:30 - Noon Molecular Biology	Break 10:30 - Noon Radiopharmaceuticals
2:00 - 3:30 PM Food Preservation	2:00 - 3:30 PM Ecology and Nuclear Installation	2:00 - 3:30 PM Plant Pathology	2:00 - 3:30 PM Plant Breeding	2:00 - 3:30 PM Radioimmunoassay

Poster Presentations

Poster Presentations will be from Tuesday Nov. 21 to Thursday Nov. 23 in The Lobby In Front of Gilgamish Hall

PLANT BREEDING
(Oral Presentation)

Tuesday Nov. 21, 1989 - Gilgamish Hall
Session 1 (2:00 - 3:30 PM)

Chairman : Prof. W. GOTTSCHALK

Co-chairman : Dr.K.K. AL-JANABI

- 2:00 1. B.DONINI, P.MANNINO : Mutagenesis Applied for the Improvement of Vegetatively Propagated Plants . (Italy) .
- 3:00 2. K.BOROJEVIC, S.SESEK : Microevolutionary Processes in a Population of Wheat, 25 Years After Irradiation . (Yugoslavia) .
- 3:15 3. M.S.EL-KEREDY : Induced Useful Mutations in Some Field Crops in Egypt. (Egypt) .

Wednesday Nov. 22, 1989 - Gilgamish Hall
Session 2 (9:00 am - Noon)

Chairman : Prof. BOROJEVIC

Co-chairman : Dr. H.G.ALI

- 9:00 4. W.GOTTSCHALK : Suppression of Gene Action Through Environmental Factors. (W.Germany) .
- 9:30 5. M.B.YILDIRIM, M.I.CAGIRGAN : Selection Studies for Grain yield in Certain Mutant Populations of Barley . (Turkey)

9:45 6. A.H.ADARY : Development of Eceriferum Mutant in Clipper Barley .
(Iraq) .

10:00 B R E A K

10:30 7. K.BOROJEVIC : Combining Conventional Wheat Breeding Procedures with
New Genetics Methods . (Yugoslavia) .

11:00 8. H.YAMAGUCHI : Production of Breeding Materials in Rice by Induced
Mutation in Japan . (Japan) .

11:15 9. M.I. CAGIRGAN, M.B. YILDIRIM : Macro-Mutational Variability
in Quantitative Traits of Barley . (Turkey) .

11:30 10. E.I.METWALLY, G.El-FADLY, A.Y.MAZROUH : Inheritance of Yield and
Fruit Quality of Some Tomato Crosses Grown Under Heat Stress Con-
ditions in Egypt. (Egypt) .

4:45 11. N.SHAABAN, L.STAMOVA : Using of Laser and Gamma Radiation in
Selection Program of Tomato, *Lycopersicon esculentum* for Salt
Tolerance . (Bulgaria) .

Thursday Nov. 23, 1989 - Sabar Hall
Session 3 (2:00 - 3:30 PM)

Chairman : Prof. B. DONINI

Co-chairman : Dr. A.M. MOHAMMED

2:00 12. M.S.OMAR, F.J.NOVAK, H.BRUNNER : Effects, Uptake and Distribution of
C14 EMS in Banana Shoot Tips Cultured In Vitro .(Iraq) .

- 2:15 13. M.I.SELBI, K.K.AL-JANABI, M.A.AL-SUDANI, W.K.AL-QUADHY : Cytogenetic Studies on Cultivated x Wild Wheat Hybrids . (Iraq) .
- 2:30 14. G.Y.P.Klu, T.V.O LAMPTEY, E.DINKU, F.J.NOVAK : Studies on Meristem Culture of White and Yellow- Pigmented Cultivars of Cassava (*Manihot esculenta* Crantz) . (Ghana) .
- 2:45 15. J.S.SANDHU, P.S.BHATNAGAR : Induced Polygenic Variation Soybean. (India) .
- 3:00 16. A.M.MATER, A.O.HASAN : Effects of Gamma Ray on Embryogenic Callus Cultures of Date Palm . (Iraq) .
- 3:15 17. A.M.MOHMMED, H.S.SALIH : Effect of Some Growth Regulators on Sunflower Callus Fresh Weight and on Protein, RNA, DNA and Carbohydrates Content. (Iraq) .

(Poster Presentation)

1. A.H.A.HAMMAD, M.T.M.SHARABASH, M.A.AHMED, M.M.HUSSEIN : Utilization of Gamma Rays for Soybean Stimulation.(Egypt) .
2. A.H.A.HAMMAD : Relation Between Rhizobium and Gamma Rays Treatments on Growth of Soybean plant and its Chemical Constituents . (Egypt) .
3. M.O.AL-AUBAIDI , I.F.IBRAHIM, K.K.AL-JANABI, E.M.AL-MAAROOF, A.H. MAHMOOD : Use of Fast Neutrons to Induce variability in Wheat Cultivar Maxipak.(Iraq).

4. A.A.M.A1-JOBOURI, W.M.A1-RAWI, D.P.YOUSIF : Induction of Male Sterility by Gibberellic Acid in Sunflower, *Helianthus annuus* L. (Iraq) .
5. D.P.YOUSIF, A.A.M.A1-JOBOURI, W.M.A1-RAWI : Response of Sunflower Genotypes to Callus Formation and Salinity Tolerance.(Iraq) .
6. K.K.A1- JANABI, L.S.MOHAMMED, N.N.JIAWOOK, I.F.IBRAHIM : Breeding Local Wheat Cultivar "Saberbeg" Using Gamma Ray.(Iraq) .
7. K.M.WOHAYEB, K.K.A1-JANABI, H.S.KHUDHAIR : Breeding of Sesame (*Sesamum indicum* L.) .(Iraq) .
8. L.S.MOHAMMED, K.K.A1-JANABI, N.N.JIAWOOK, I.F. IBRAHIM : Breeding of (*Triticum aestivum* L.) by Hybridization . (Iraq) .
9. A.H.A1- MAINI, K.K.A1-JANABI, M.I.SELBI, W.M.ABDULKARIM : Wide Hybridization of Bread Wheat (*Triticum aestivum* L.) Using Irradiated and Non- Irradiated Pollen of Triticale. (Iraq) .
10. M.A.KGAZAL : Effects of Pollen Irradiation on Fruit Development, Yield and Seeds Formation in Date Palm (*Phoenix dactylifera* L.) . (Iraq.) .
11. M.I.SELBIA, H.A.KHETHYER, A.M.MAHDI : Breeding of Barley Via Irradiation and Chemical Mutagens . (Iraq) .
12. N.N.JIAWOOK, K.K.A1-JANABI, M.A.A1-AUBEEDI : Induced Mutations in Local Wheat (*Triticum aestivum* L.) Cv. Ajeeba Using Chemical Mutagen (NaN₃) .
(Iraq).

13. W.K.A1-QAUDHY, D.S.A1-ANI and S.A.A1-HEDEETHY : Production of Backcross Reciprocal Monosomic Lines Used for Chromosomal Locations of Genes in Local Cv. Ajeeba and Saberbeg . (Iraq) .
14. M.A.HAMZA, A.H.A1-YOUNIS, and F.A1-KALIZY : Study of Eight Mutants Induced From Two Barley Cultivars (*Hordeum vulgare* L.).(Iraq) .
15. H.A.SAIF, M.S.OMER, F.A.SALIH : Effects of Gamma Ray on Growth, Carbohydrates, Proteins and Nucleic Acid Contents of Wheat Callus Cultures. (Iraq) .
16. M.S.A1-RAWI, M.K.HAMEED, M.S.OMAR : Protoplast Isolation, Culture and Fusion in *Phoenix dactylifera* L. (Iraq) .
17. M.K.HAMEED, M.S.A1-RAWI, M.S.OMAR : Propagation of the Date Palm In Vitro. (Iraq) .
18. F,A.SALIH, M.S.OMAR, H.A.SAIF : Effects of Sodium Chloride on Carbohydrate, Protein and Nucleic Acid Contents in Four Wheat (*Triticum*) Cultivars Cultured In Vitro . (Iraq) .
19. M.S.OMAR, F.J.NOVAK: Somatic Embryogenesis of Date Palm- A Source for Mutagenesis In Vitro . (Iraq) .
20. H.C.ALI, M.A.HUSSAIN : Influence of Gamma Radiation on the Morphological Traits, Yield and Yield Components of Several Genotypes of Maize .(Iraq) .

PLANT PATHOLOGY
(Oral Presentation)

Wednesday Nov. 22, 1989 - Conference Room
Session 1 (2:00 - 5:00 PM)

Chairman : Dr. K.M.HAMEED

Co-chairman : Dr. F.A.FATTAH

- 2:00 1. A.POPOV , Y.POPOVA : Mutation Inducing in Maize Via Gamma Rays and Fast Neutrons . (Bulgaria) .
- 2:30 2. I.F.IBRAHIM, A.A.AL-JANABI, E.M.AL-MAAROOF: Induction of Powdery Mildew Resistance in Barley . (Iraq) .
- 2:45 3. H.A.ABU-BLAN : Physiological Basis Underlying the Resistance of Determinate Flowering Fababean Lines to Botrytis fabae Infection . (Jordan) .
- 3:00 4. N.Y.AL-TALEB, S.M. NEMIR, A.K.AL-TAIE : Study on Wheat Flag Smut Incited by Urocystis agropyri . (Iraq) .
- 3:15 5. R.H.SINGH, M.PAL : Pigeonpea Genotypes Resistant to Phytophthora Blight. (India) .
- 3:30 B R E A K
- 4:00 6. I.F.IBRAHIM, K.K.AL-JANABI, E.M.MAAROOF, M.O.AL-AUBAIDI, A.H.MAHMOOD, A.A.AL- JANABI, H.O.HAIDER : Development of New Iraqi Wheat Variants Through Induce Mutation . (Iraq) .

- 4:15 7. A.K.AL-TAIE, N.Y.AL-TALEB, S.M.NEMIR : Priliminary Study on Barley Twisted Disease Incited by *Dilophospora alopecuri* . (Iraq) .
- 4:30 8. K.M.TAMIMI : Effect of Phyllody and Shoot Apex Fasciation on the Yield of Certain Mutants of Sesame . (Iraq) .
- 4:45 9. P.P.SINGH, T.S.THIND, S.S.SOKHI , R.K.GREWAL : Epidemiological Studies on the Spread of Downy Mildew on Muskmelon During Dry Weather . (India) .

Thursday Nov. 23, 1989 - Conference Room
Session 2 (2:00 - 3:30 PM)

Chairman : Prof. A.POPOV

Co-chairman : Dr.I.F.IBRAHIM

- 2:00 10. M.A.AL-HAMADANY, M.M.SALEH, I.A.AL-DULAIMI: Inheretance of Mildew Resistance in Barley . (Iraq) .
- 2:15 11. J.S.BRAR, B.S.THIND : A new Method for Proving Seed Transmission of *Xanthomonas campestris* Pv. *oryzae* . (India) .
- 2:30 12. H.A.HADWAN, T.P.BHOWMIK : Some Biochemical Changes in Resistant and Susceptible Groundnut Cultivars Infected by *Aspergillus niger* . (Iraq) .
- 2:45 13. A.L.ABDEL SALAM : The Role of White Fly *Bemesia tabaci* Genn. in Transmitting Virus Diseases to Tomato in Egypt. (Egypt) .

- 3:00 14. S.S.SOKHI, G.D.MUNSHI, C.MOHAN, P.P.SINGH : Epidemiological Studies on Flag Smut of Wheat in India . (India) .
- 3:15 15. D.LALITHAKUMARI, R.RAVATHI : Morphological Characterization of Laboratory Mutant of *Rhizoctonia solani* Kuhn (Paddy Strain) Resistant to Bavistin . (India) .

(Poster Presentation)

1. D.LALITHAKUMARI , V.R.PROBAVATHY : In Vitro Toxicity of Biloxyzole (Baycor) on Phytopathogenic Fungi . (India) .
2. M.A. AL-HAMADANY, M.M.SALIH, I.A.AL-DULAIMI : Induced Resistant Mutations in Broad Bean Against *Fusarium Wilt* by Gamma Rays and EMS. (Iraq).
3. H.A.HADWAN, P.BHOWMK : Anatomical study on some Collar - Rot Resistant and Susceptible Groundnut (*Arachis hypogaea* L.) Cultivars. (Iraq) .
4. I.D. AL-MAFRAGI, F.M.SHARIF, S.A.HABIB, W.SALMAN : The Role of the Fungi *Aspergillus terreus* Thom and *A.fumigatus* Fres.with Certain Herbicides in the Integrated Control of Johnsongrass , *Sorghum halepense* (L.) Pers. .(Iraq) .
5. P.G.Savov : Radiation Mutagenesis and Gene Pool of the Wheat . (Bulgaria) .
6. F.A.FATTAH ,H.M.SALEH : Studies on Wheat Seed Gall Nematode . (Iraq) .
7. F.A.FATTAH, H.M.SALEH, H.M.ABOUD : Role of Plant Parasitic Nematodes in Date Palm Decline . (Iraq) .

8. M.A.AL-HAMDANY , M.M.SALIH, I.A.AL-DULAIMI : *Induced Resistance in Alfalfa Against Rust disease by Gamma Rays . (Iraq) .*
9. F.A.FATTAH, F.KADEM, H.M.SALEH, H.M.ABOUD : *Biological Control of the Root-Knot Nematodes . (Iraq) .*
10. I.ABBAS, M.N.MOUHI : *Reaction of 17 Barley Cultivars and Mutants to Scald Disease . (Iraq) .*
11. A.A.AL-JANABI, I.F.IBRAHIM, E.M.AL-MAAROOF : *A Study on Resistance of Different Barley Variants to Puccinia Hordei in M³ Generation . (Iraq) .*
12. E.M.AL-MAAROOF, I.F.IBRAHIM, A.A. JANABI, M.O.AL-AUBAIDI : *Evaluation of some Barley Mutants to Scald Disease . (Iraq) .*

PLANT PHYSIOLOGY
(Oral Presentation)

Tuesday Nov. 23, 1989 - Quiet Saloon
Session 1 (9:00 AM - Noon)

Chairman : prof. M.A. AL-YOUNIS

Co.chairman : Dr. I.S. AL-SADDAWI

- 9:00 1. A.K. ABD EL-HALEM ,M.T.M. SHARABASEH, A.H.A. HAMMAD, I.O.A. ORABI :
Effect of Gamma Irradiation and Salinity on Growth of Wheat .
(Egypt) .
- 9:15 2. I.S. AL- SADDAWI, W.M.AL-DOORI : Evaluation of Salt Tolerance of
Three Mutants of Wheat Cv. Ajeeba . (Iraq) .
- 9:30 3. A.H.A. HAMMAD, I.O. ORABI, A.K. ABD EL-HALEM, M.M. HUSSEIN : Effect
of Gamma Irradiation and Salinity on Growth, Yield and it's
Components and Chemical Composition of Barley . (Egypt) .
- 9:45 4. S.M. AL-MASHHADANI, I.S. AL-SADDAWI, W.M. AL-DOORI : Evaluation of
Draught Avoidance and Tolerance of Three Barley Genotypes . (Iraq).
- 10:00 B R E A K
- 10:30 5. D. LALITHAKUMARI , K. RATHNAVATHI : Biloazazole (Baycor) and Calixin
as Growth Regulants of Tomato Plant (*Lycopersicon esculentum*)
(India) .

- 10:45 6. F.M.ABDEL GALIL, O.K.HASHIM, M.A.EL-JESRI : Biogenesis of C27 Steroidal Alkaloids in Solanum Plants . (Egypt) .
- 11:00 7. S.SAVITHIRY, D.LALITHAKUMARI : Effect of Methyl Isocyanate an Phase I of Germination of Cotton and Paddy Seeds . (India) .
- 11:15 8. M.F.BARAKAT, A.N.FARAG, M.T. RAGAB, M.M.EL-FOULY, F.K.EL-BAZ : Radiophotosynthesis of Some ^{14}C -labelled Amino Acids Using the Unicellular Green Algae *Scendesmus acutus* . (Egypt) .

(Poster Presentation)

1. F.M.HUMADI, A.H.AISAMARRIE, S.M.AL-HAMADNY : Effect of Nitrogen and Calcium on Growth and Yield of Cabbage (*brassica oleracea varcaptata* (Iraq) .
2. F.M.HUMADI, A.H.ALSAMARRIE, S.A.AL-HAMADNY : Effect of Nitrogen and Calcium on Growth on Yield of Cauliflower (*Brassrca oleracea* , var caprtata (Iraq).
3. I.S.ALSADAWI, W.M.ALDOORI : Salt Tolerance of Three Barley Mutants (Iraq) .
4. T.K.MERZA, G.A.KHUDHIER, A.N.JIRI : Relationship Between Planting Density and Infloresence Number with Growth and Characteristics of Early Yield in Tomatoes (Iraq) .

S O I L

(Oral Presentation)

Wednesday Nov. 22, 1989 - Executive Meeting Room
Session 1 (2:00 - 3:30 PM)

Chairman : Dr. R.K. AL-ANI Co-chairman : Dr. J.K. AL-UQAILI

- 2:00 1. A.A.FAHAD, R.M.SHIHAB, A.W.ALI, H.A.TAWFEEK : Mobility and Reactivity of Cationic Radionuclides in Calcareous Soils of Iraq . (Iraq) .
- 2:15 2. J.K.AL-UQAILI, A.A.AL-HADETHI, J.S.MAHMOOD : Adsorption and Desorption of Iron in Calcareous Soils . (Iraq) .
- 2:30 3. M.M.SALIH, H.K.AL-SALMANI, A.A.SHAKER, S.A.KUBBA : Use of Sulphuric Acid with Irrigation Water to Improve Plant Productivity of Calcareous Soil . (Iraq) .
- 2:45 4. M.MECHERGUI, M.H.SNANE, E.HAMZA : Mulching Effect on Water Consumptive Use by Sorghom . (Tunisia) .
- 3:00 5. F.G.AZIZ, B.I.MOHAMMED : Evaluation of Chemical Methods to Assay Potentially Available N to Wheat Crop Grown on Calcareous Soils. (Iraq) .
- 3:15 6. A.A.FAHAD, R.M.SHIHAB, H.A.TAWFEEK : Leaching of Sodium and Chloride in Soils Using Tracer Technique . (Iraq) .

- 3:30 7. M.I.KARIM, B.I.MOHAMMED, S.H.BAKER : Phosphate Sorption and its Relation to Soil Properties in Some Iraqi Soils . (Iraq) .

Thursday Nov. 23, 1989 - Executive Meeting Room
Session 2 (9:00 - 10:00 AM)

Chairman : Prof. A.H. ALZUBAIDI

Co-chairman : Dr. A.A. FAHAD

- 9:00 8. M.BOLTER : Microbial Respiration in Antarctic Soils Comparison of Data from Different Methods and Implication for Models.(W.Germany).
- 9:30 9. J.K.UQAIL, J.S.MAHMOOD : Estimation of Plant Available Phosphorus (Iraq) .
- 9:45 10. E.AJAJ, M.AHAMED : The Combined Effect of the Heating by Using Solar Energy and Different Levels of Sulphur on Soil on Phosphorus Availability and P Uptake by Pepper Under Plastichouse Conditions . (Iraq) .

(Poster Presentation)

1. S.M.AL-MASHHADANI, K.K.ALJANABI, S.A.SALIM, M.H.IBRAHIM : Study of Physiological Changes as a Measure of Salt Tolerance in Different Wheat Genotypes . (Iraq) .
2. A.A.AL-HADETHI, J.K.AL-UQAILI, J.S.MAHMOOD : Effect of Soil Salinity and Soil Moisture Regime on the Efficiency of N Fertilizers Using N-15 Methodology . (Iraq) .
3. R.M.SHIHAB, A.A.FAHAD, M.M.ALI, H.A.TAWFEEK : Influence of Clay Minerals and Iron Oxide on Movement of Mn - 54 in Soil . (Iraq) .

ENTOMOLOGY

(Oral Presentation)

Tuesday Nov. 21, 1989 - Conference Room
Session 1 (2:00 - 3:30 PM)

Chairman : Prof. L.E. LACHANCE

Co-chairman : Dr. H.F. ALRUBEAI

- 2:00 1. W.J.KLOFT, P.NEUMANN-OPITZ : Transfer of Radio Cesium (^{134}Cs) from Contaminated Food to Insects of Different Nutritional Types- Intake, Retention and Elimination . (W.Germany) .
- 2:30 2. M.S.EL-ZEMAITY, S.M.ABDEL BAKY, F.M.MARIY : Sterility Effects of Gamma Irradiation Against *Ephestia cautella* (Walker) . (Egypt) .
- 2:45 3. M.Y.Y.AHMED, A.DAOUUD, E.A.EL-KADY, S.A.BOSHRA : Competitiveness Value of the Indian Meal Moth Adults Irradiated as Fully Grown Pupae . (Egypt) .
- 3:00 4. A.R.BUGHIO : Effect of Gamma - Radiation on Mature Pupae of Maize Borer, *Chilo partellus* . (Pakistan) .
- 3:15 5. A.A.AL-TAWEEL, M.S.H.AHMED, M.A.SHAWKIT, M.J.NASSER : Inherited Sterility Among *Ephestia cautella* Laboratory Population Exposed to Gamma Radiation . (Iraq) .

Wednesday Nov. 22, 1989 - Conference Room
Session 2 (9:00 AM - Noon)

Chairman : Prof. A.F. AL-AZAWI

Co-chairman : Prof. W.J. KLOFT

- 9:00 6 E.M.HEGAZI, N.R.EL-SINGABY, M.A.SHABAN : Effect of Photoperiod on the Duration of Immature Stage of *Spodoptera littoralis* (Biosd) . (Egypt) .
- 9:15 7. A.A.OMAR, A.ABU YOUSIF : Effect of Gamma Radiation and Dursban to Induce Mutations in *Drosophila melanogaster* . (Egypt) .
- 9:30 8. M.A.J.AL-IZZU, N.F.JABBO : Population Dynamics and Field Biology of Dubas Bug, *Onmatissue binotatue lybicus* in Iraq . (Iraq) .
- 9:45 9. F.AL-ZUBAIDI, A.HASOON, N.HILAFFY: Evaluation of the Potential Use of Some Industrial Wastes as Insecticides . (Iraq) .
- 10:00 B R E A K
- 10:30 10. O.O.DIPEOLU : Prospects for the Control of Ticks of Livestock in Africa . (Kenya) .
- 11:00 11. E.M.T.AL-HAFIDH : The Integration of *Bacillus thuringiensis* and Some Insecticides on *Batrachedra amydraula* . (Iraq) .
- 11:15 12. M.AL-BADRY: Metabolism of Malathion in *Ephestia cautella* . (Iraq).
- 11:30 13. E.M.HEGAZI, M.A.SHABAAN, N.R.EL-SINGABI : Development of

Microplitis rufiventris Kok. Within Superparasitized *Spodoptera littoralis* Boisd Larvae . (Egypt) .

11:45 14. Z.S.AL-HAKKAK, S.H.DAKHIL : Effects of He-Ne Visible Laser Radiation on the Embryos of *Ephestia cautella* (Walker). (Iraq) .

(Poster Presentation)

1. B.M.AL-CHALABI, N.A.ODA : Inheritance of Dark Head and Siphon *Culex quinquefasciatus* Say . (Iraq) .
2. A.A.OMAR, A.A.YOUSIF : Induced Mutations in *Drosophila melanogaster* by Gamma Radiation and Nitrosocarbaryl . (Egypt) .
3. M.KOHN : The Distribution of *Aedes aegypti* (L.) and *Culex quinquefasciatus* Say in Dwelling Houses of Various Construction in Phnom Penh ,Kampochea . (Czechoslovakia) .
4. E.M.T.AL-HAFIDH : Biological and Ecological studies on *Ommatissus binotatus* Lybicus De Bergevin . (Iraq) .
5. E.M.T.AL-HAFIDH : The Integration of *Nosima whitei* and Some Chemical and Biological Insecticides on *Tribolium castaneum* . (Iraq) .
6. Z.H.MOHSEN, J.T.KASSIR, B.M.AL-CHALABI , N.S.MEHDI : Mosquito Control by Limonene . (Iraq) .

7. J.ABU-HAB : In Search for Alternates to Chlordaan for the Control of Termites . (Iraq) .
8. H.F.ALRUBEAI : Radiosensitivity of *Ephestia calidella* Male and Female Pupae. (Iraq) .
9. M.A.J.AL-IZZI, S.K.AL-MALIKY, N.F.JABBO : Feeding and Oviposition of Dubas Bug Under Laboratory Conditions.(Iraq) .
10. A.A.AL-TAWEEL, M.S.H.AHMED, M.A.SHAWKIT, M.J.NASSER : Mutants Induction in *Ephestia cautella* and its Importance for Genetic Control.(Iraq) .
11. S.K.AL-MALIKY, M.A.J. AL-IZZI : *Apanteles angaleti* (Hymenoptera : Braconidae) Effect on Adults of Cocoons Stored at 150°C . (Iraq) .
12. S.K.AL-MALIKY, M.A.J.AL-IZZI : Field Cage Evaluation of Laboratory Reared Parasite *Apanteles argaleti* (Hymenoptera: Braconidae) . (Iraq).
13. H.F.ALRUBEAI, Z.A.A.AL-GHRBAWIE, T.R.AHMAD: Induction of Sexual Sterility in *Ephestia calidella* Males by Sublethal Heat Treatment . (Iraq) .
14. A.A.HAMEED, M.S.H. AHMED, A.A.AL TAWEEL : The Phenomenon of Cytoplasm Incompatibility in *Ephestia cautella* population in Iraq and Its Possible Utilization in Genetic Control.(Iraq) .
15. S.B.LAMOOZA, S.S.KADHOM : Electrophoretic Analysis of Proteins in *Ephestia cautella* .(Iraq) .
16. M.A.SHAWKIT : Effect of Gamma Radiation on the Mating Ability of *Ephestia cautella* (Lepidoptera : Pyralidae) . (Iraq) .

17. T.R.AHMAD, M.A.ALI : Dispersal of Carob Moth *Ephestia calidella* (Gunee) (Lepidoptera : Pyralidae) in the Date Plam Orchards. (Iraq) .
18. R.S.SALEH : Effect of Parasitoid *Microplitis rufiventris* Kok on the Haemolymph Proteins of *Spodoptera littoralis* (Boisd). (Egypt) .
19. T.R.AHMAD, M.ALI : Influence of Pheromone Concentration and Plant Cover on Movement of Peach Twig Borer in Central Iraq . (Iraq) .
20. M.A.J.AL-IZZII, S.K.AL-MALIKY, N.F.JABBO : Effect of Gamma Radiation and Temperature Treatments on *Ephestia cautella* Larvae . (Iraq) .
21. M.S.AL-BADRY , A.I.AL-SAMARRAEI, M.AL-BASSOMY, K.H.AL-MAJEED : Persistence of Methidation and Chlorpyrifos on Apple in Central Iraq . (Iraq) .

MICROBIOLOGY AND N₂ FIXATION
(Oral Presentation)

Wednesday Nov. 22, 1989 - Executive Meeting Room
Session 1 (9:00 AM - Noon)

Chairman : Prof. K.S. AL-DULAIMI Co-chairman : Dr. J.F. AL-MAADIDI

- 9:00 1. F.Y.AL-ANI, A.K.AL-SULTANI : Characterization of *Rhizobium meliloti* Bacteriophage Isolated From Iraqi Soil . (Iraq) .
- 9:30 2. J.F.AL-MAADHIDI, A.K.ABBAS : Effects of Soils and Salinity on Nitrogen Fixation of *Azospirillum* spp. Incorporated to Wheat Plant. (Iraq) .
- 9:45 3. D.LALITHAKUMARI, B.RAJKUMAR : Efficacy of Nitrogen Fixation of Photosynthetic Bacteria Utilizing Bavistin and Diuron as the Carbon and Nitrogen Source . (India) .
- 10:00 B R E A K
- 10:30 4. A.N.YOUSEF, N.A.ALI, B.H.MUNAM : Interaction Effects of Phosphorus, Rhizobia and Mycorrhiza on Growth, Nodulation, N₂ - Fixation and Nutrient Uptake by Soybean Grown in Calcareous Soil. (Iraq) .
- 10:45 5. A.H.MAHMOOD : Possibility of Cowpea Nodulation Bacteria to Infect Soybean . (Iraq) .

- 11:00 6. V.R.BALASUNDARAM , K.ANNAPURNA : Effect of Some Plant Growth Regulators on Nodulation and Yield of Soybean . (India).
- 11:15 7. M.J.S.EWAD, H.Y.KADHIM, H.M.AMMASH : Uptake of $[H^3]$ -Dihydrostreptomycin by a Wild Type *Streptomyces griseorubens* and It's Streptomycin Resistant Mutants . (Iraq) .
- 11:30 8. S.J.TAJ-ALDEN, K.I.TAHIR : The Cellulolytic System of *Aspergillus niveus* . (Iraq) .
- 11:45 9. N.L.RANI, D.LALITHAKUMARI : Degradation of Organophosphorus Pesticides by *Pseudomonas putida*. (India) .

(Poster Presentation)

1. S.J.TAJ-ALDEEN, A.H.LAFTA : Saccharification of Lignocellulosis by *Trichoderma reese* Rut C30 . (Iraq) .
2. S.KANDALA, A.ALSHIBIB : Pigment Spectroscopic Analysis of *Pseudomonas aeruginosa* . (Iraq) .
3. A.Y.AL-RUBEAI, A.K.HASSAN, S.Z.JAWDAT, H.S.ALI : In Vitro Multiplication of *Leishmania donovani* in Peritoneal Macrophages Collected from Irradiated Mice. (Iraq) .
4. A.M.ALSAQR, L.G. AL-SEAIDI, H.F.KAMIL, M.M.ATTIC : Hydrogenase Activity in Some Indigenous *Rhizobium meliloti* Population in Iraqi Soil.(Iraq) .

5. *M.A.AMIN, A.M.S.HOSNY, A.M.HASHEM : Inulase Production by Filamentous Fungi and Thermo-Tolerant Bacilli . (Eygpt) .*

RADIATION BIOLOGY
(Oral Presentation)

Tuesday, Nov. 21, 1989 - Executive Meeting Room
Session 1 (2:00 - 3:30 PM)

Chairman : Prof. I.M.PARKHOMENKO

Co-chairman : Dr. A.M. RASHID

- 2:00 1. I.M. PARKHOMENKO : Molecular- Cellular Mechanisms of Low-Doses Biological Action the Ways of the Low-Doses Early Effects Detection and the Possibility of its Modification by Radioprotectors . (USSR) .**
- 2:15 2. H. HUSSEIN, M.A. EL-ASHRY, W.M. ABDEL - BAKY, I.M. EL- GAMAL : Whole Brain Norepinephrine and Serotonine as Affected by Whole Body Gamma Irradiation . (Egypt) .**
- 2:30 3. A.M. RASHID ,H. AUDA, A.H. KHALEEL : Effect of Radiation on Plasma Protein in Mice . (Iraq) .**
- 2:45 4. H.S. EL-KASHEF, A.M. MAHDY, H.M. ROUSHDY : Recovery from Radiation Induced Changes in Brain Electrical Activity of Irradiated Male Rats Due to the Application of Testosterone - Vitamine Mixture as Radioprotector . (Egypt) .**
- 3:00 5. E.B. KUPRIYANOVA, V.I. SUSLIKOV : Age Changings in Radiosensitivity of Isopod, Protracheoniscus orientalis .(USSR) .**

- 3:15 6. H.S. EL-KASHEF, A.M.MAHDY, H.M. ROUSHDY : *Repairing of Radiation Induced Disorders in the Response of Central Nervous System to Photostimulation in Male Rats . (Egypt) .*

(Poster Presentation)

1. T. ALKARMI, A. MUSTAFA, R. ALSHARIF, H. DAHLAN, K. BEHBEHANI : *The Effect of gamma Radiation on the Infectivity Fecundity and Viability of Trichinella spiralis and Trichinella Pesudospiralis . (Kuwait) .*
2. H. HASSEIN : *Correlation Between Plasma and Different Brain Regions Neurohormones as Affected by whole - Body Ionizing Irradiation in Albino Rat. (Egypt) .*
3. N.K. AL-DAHAM, E.W. SHELL : *The Effect of Cobalt Gamma Ray Irradiation on Survival Growth and Reproduction of the Cichlid Fish, Oreochrodin aureus . (Iraq) .*
4. A.H. KHALEEL, A.M. RASHID, H. AUDA : *Effect of Radiation on Amino Acid Composition of Purified Alkaline Phosphatase from Liver of Mice.(Iraq) .*

MOLECULAR BIOLOGY
(Oral Presentation)

Wednesday Nov. 22, 1989 - Executive Meeting Room
Session 1 (4:00 - 5:00 PM)

Chairman : Prof. I.C. GUNSALUS Co-chairman : Prof. S. AL- MUDHAFAER

- 4:00 1. B.AL-ALLAK, S.M.NADA, N.A.ALI : Isolation of the HPRT Gene from Chinese Hamster V79 Cells . (Iraq).**
- 4:15 2. H.M.ALI, T.A.G. AZIZE, H.M. ABDUL-KARIM : Isolation and Characterization of Hepatitis B Surface Antigene from Donors Blood. (Iraq) .**
- 4:30 3. E.K.SHUBBER, S.M.NADA, A.H.KARAM : Amplification of Dihydrofolat - Reductase (DHFR) Gene in Mammalian Cells . (Iraq) .**
- 4:45 4. M.B.RASSAM , L.J.AL-DIWANY, W.ISAA, A.SMYTH : Characterization of Leishmania Parasites from Iraq by DNA Hybridization Using Species - Specific Recombinant DNA Probes (Iraq) .**

Thursday Nov. 23, 1989 - Sabar Hall
Session 2 (9:00 AM - Noon)

Chairman : Prof. H. AUDA Co-chairman : Dr. Z.A. AL-DOORI

- 9:00 5. I.C.GUNSALUS : Prospects of Biotechnology in the Developing Countries.(ICGEB, Italy) .**

- 10:00 B R E A K
- 10:30 6. Z.AL-DOORI, A.CLOR, N.ALI : Properties of PIQ5 Plasmid Which Originated in *Klebsiella pneumoniae* ZD 532.(Iraq) .
- 10:45 7. P. ANNAMALAI , D.LALITHAKUMARI, : Isolation and Regeneration of Protoplast from *Derchslera oryzae*.(India) .
- 11:00 8. F.R.ALI, T.M.ISMAEL : Protoplast Formation, Fusion and Regeneration of *Rhizobium meliloti* .(Iraq) .
- 11:15 9. D.LALITHAKUMARI, P.ANNAMALAI : Plasmid Mediated Ediferphos Resistance in *Drechslera oryzae*.(India) .
- 11:30 10. N.A.ALI , M.A.IBRAHIM, Y.Y.SALIH, J.DULAIL : Extracellular Amylase Synthesis by Local *Streptomyces* Sp. (Iraq) .
- 11:45 11. A.AI-ZAAG : Construction of Transposable Cellobiose Encoding Genes. (Iraq) .

(Poster Presentation)

1. J.M.JANDAL : Iodination of Buffalo Milk Fat Globule Memberane Proteins Isolated from Ultra High Temperature Treated Milk.(Iraq) .
2. S.M. NADA, H.ALANI : Karyotype of Awassi Sheep and Jenubi Cattle in Iraq. (Iraq) .

3. A.SAHIB, M.B.RASSAM, R.K.MUSLIH : Separation and Characterization of *L. donovani* Antigens Provoking Antibody Formation in Visceral Leishmaniasis . (Iraq) .
4. E.K.SHUBBER, S.M. NADA, A.W.AL-SHAIKLY : Chromosomal Analysis of Lymphocyte Isolated from Leukemic Patients.(Iraq) .

FOOD PRESERVATION

(Oral Presentation)

Tuesday Nov. 21, 1989 - Quiet Saloon
Session 1 (2:00 - 3:30 PM)

Chairman : Dr. S.A. AL-SHAKIR Co-chairman : Dr. H. JADDOU

- 2:00 1. W. STACHOWICZ, J. MICHALIK, G. BURLIN'SKA : IDENTIFICATION OF Food Irradiation With Gamma Rays And Electron Beam . (Poland) .
- 2:30 2. H. JADDOU, F.A. SAEID, E.Z. NAJI, H.I. KHALAF : The Use of Some physical and Chemical Methods for the Identification of Irradiation Food (Iraq) .
- 2:45 3. I.I. EL-OKSH, M.T.M. SHARABASH, I.O.A. ORABI : Studies On the Storage of Irradiated Potatoes- I. Effect On Physical Properties . (Egypt) .
- 3:00 4. A. BOUSSAHA : Commercial Prospects of Food Irradiation In (Algeria) .
- 3:15 5. M.T.M. SHARABASH, I.I. EL-OKSH, I.O.A. ORABI, M.A. ABD-ALLA : Studies on the Storage of Irradiated Potatoes - II . Effect On Chemical Constituents . (Egypt) .

Thursday Nov. 23, 1989 - Quiet Saloon
Session 2 (2:00 ~ 3:30 PM)

Chairman : Dr. M.S.H. AHMED

Co-chairman : Dr. I.O.A. ORABI

- 2:00 6. S. IGNATOWICZ : Efficacy of Gamma Radiation As A Quarantine Treatment Against Stored Product Pests. (Poland) .
- 2:15 7. M.S.H. AHMED , A.A. AL-Taweel, A.A. Hameed : Disinfestation of Packet Dates by Gamma Radiation Using a Suitable Food Irradiation Facility . (Iraq) .
- 2:30 8. H.A. Highland : Post - Irradiation Protection from Infestation with Insect Resistant Packaging . (USA) .
- 2:45 9. A.I. AL-SENBUL, A.M. AL-ANI, A.A. AL-SAMARRIE, E.G. DAWOOD : Effect of Storage Duration on the Storability of Six Potato Cultivars *Solanum tuberosum* L. (Iraq) .
- 3:00 10. M.A. ABD-ALLA, I.I. EL-OKSH, M.T.M. SHARABASH, I.O.A. ORABI : Studies on the Storage of Irradiated Potatoes III . Quality of Culinary. (Egypt) .
- 3:15 11. I.O.A. ORABI, A.A. HAMMOD : Mycological and Chemical Studies On Irradiated Potatoes . (Egypt) .

(Poster Presentation)

1. A.A. MAHMOUD : Effect of Irradiation and Storage on the Quality of Potatoe Chips . (Egypt) .
2. A.A. ALSAMARRIE, A.I. AL-ATTAR : Effect of Maleic Hydrazide on the Qualitative Characteristic of Onion (*Allium cepa* L.) Stored in Ventilated and Cold Storages . (Iraq) .
3. M.T.M. SHARABASH : Studies on Votatile Compounds in Mangoes and tomatoes as Affected By Gamma Ray (Egypt) .
4. S. IGNATOWICZ, M. WROBLICKA - SYSIAK : Responses of the Bulb Mites to Gamma Radiation from ^{60}Co . (Poland) .
5. A.I. AL-SENBUL, A.A. AL-SAMARRIE, A.M. AL-ANI, E.G. DAWOOD : The Storability of 25 Potato Cultivars *Solanum tuberosum* Under Cold Storage and Reconditioning . (Iraq) .
6. M.A. HAKIM, B.J. PARSONS : Effect of Free Radicals Produced by Gamma Radiation on Lipoxygenase . (Iraq) .
7. M.T. AL-KAISEY, K.C.B. WILKIE : Polysaccharides in Lupin Seeds . (Iraq) .

*ECOLOGY & NUCLEAR INSTALLATION
(Oral Presentation)*

*Thursday Nov. 23, 1989 - Executive Meeting Room
Session 1 (10:30 AM - Noon)*

Chairman : Dr. M. SALLAMA

Co-chairman : Dr. A. SABRI

*10:30 1. R.H.GRAY: Monitoring the Impact of Nuclear Facilities on the
Environment . (USA) .*

*11:30 2. I.I.SHUKTOMOVA, I.G.KOCHAN, A.I.TASKAEV : Mobile Forms of Plutonium
in Some Chernobyl Zone Soils . (USSR) .*

*Thursday Nov. 23, 1989 - Executive Meeting Room
Session 2 (2:00 - 3:30 PM)*

Chairman : Prof. R.H. GRAY

Co-chairman : Dr. A.F. ABBAS

*2:00 3. A.SABRI, K.A.RASHEED, S.SHAWKAT : Aspects of General Ecological
Studies for NPP Site Selection in Iraq. (Iraq) .*

*2:30 4. A.HELMI, M.SALLAMA, F.H.HAMMAD : Emergency Planning and
Preparedness for Accidents Involving Radioactive Materials Used in
Medicine and Teaching . (Egypt) .*

- 2:45 5. M.SALLAMA, A.HELMI, F.H.HAMMAD : *Emergency Planning and Preparedness for Nuclear Power Plants . (Egypt) .*
- 3:00 6. V.G.ZAINULLIN, A.O.RAKIN, V.A.SHERCHEIVKO : *The Frequency of Recessive Lethal Mutations Following Gamma Irradiation of Natural Population of Drosophila melanogaster (USSR)*

(Poster Presentation)

1. P.K.SHIBEEB, H.A.M.DAUOD, T.Y.ALDOURI : *Some Biological Aspects of Two Economically Important Fish of Genus Barbus from Al-Habbania Lake. (Iraq).*
- 2 R.K.SHIBEEB, T.Y.ALDOURI, H.A.M. DAUOD : *Some Biological Aspects of Barbus luteus (Heckel) from Al- Habbania Lake. (Iraq) .*
3. A.A.AL-TAWEEL, M.A.SHAWKIT : *The Induction of Cell Death in the Testis of Heteracris littovalis by Gamma-Rays. (Iraq) .*

RADIATION PROTECTION
(Oral Presentation)

Thursday Nov. 23, 1989 - Conference Room
Session 1 (9:00 AM - Noon)

Chairman : Prof. M.F. BARAKAT

Co-chairman : Dr. I.K. AL-HADAD

- 9:00 1. I.S.RIZZO, S.TECHINT : Optimization Criteria and Methodologies of a Supercompacting Facility for Nuclear and Hazardous Wastes .(Italy).
- 9:30 2. M.E.SHERFAD, T.S.AKKI, S.A.EL-DABBAR, R.M.MEGAHID : Study on the Effect of Boron Loaded Steel on the Distribution of Thermal and Epithermal Neutrons in Multilayers Shield.(Libya) .
- 10:00 B R E A K
- 10:30 3. A.A.MUSTAFA , C.M. VASISHT :Measurement and Health Effects of Indoor Radon Concentration in Kuwait.(Kuwait) .
- 10:45 4. M.IMAM, M.Q.AL-DYNI : Calculation of Dose Rate Above the IRT-Reactor in Case of Losing Half of the Pool's Water . (Iraq).
- 11:00 5. H.AL-WANDAWI, E.I.MAHDI, E.A.HASSAN : Full Protection of Lethally Irradiated Mice by Chemical Radioprotectors . (Iraq) .
- 11:15 6. M.F. BARAKAT, M.A.EL-NESHABY : Protection in Irradiated Chemical System : I- Protective Effect of Some Organic Additives in Irradiated Aqueous Solutions of Polyvalent Ions. (Egypt) .

(Poster Presentation)

1. A. OUTHMAN, M.A. KENAWY A. MORSEY : Gas Gain in Neon Hydrogen Filled Gaseous Proportional Detectors. (Egypt) .
2. H. AL-WANDAWI, M.M. ABDUL RAHMAN, K.A. AL-SHAICKLEY : Radioprotective Role of Some Carotenoid Compounds. (Iraq) .

DOSIMETRY
(Oral Presentation)

Wednesday Nov. 22, 1989 - Quiet Saloon
Session 1 (2:00 - 5:00 PM)

Chairman : Prof. D.E. WATT

Co-chairman : Dr. H.M.A. AL-SHAIBANI

- 2:00 1. D.E.WATT : Radiation Dosimetry : Philosophy, Principles, Practice and Future Trends . (UK) .
- 3:00 2. M.AL-JARALLAH, E.PIESCH, B.BURCKHARDT : Development of a Single Sphere Albedo System for the Measurement of Neutron Dose Equivalent Rates and the Field Calibration of Personnel Albedo Neutron Dosimeters . (Saudi Arabia) .
- 3:15 3. A.N.BALASEM, A.K.ALI : Micronucleus Assay for Biological Dosimetry . (Iraq) .
- 3:30 B R E A K
- 4:00 4. A.N.BALASEM, A.K.ALI : Chromosomal Aberrations as a Biological Dosimetry for Radiation Exposures . (Iraq) .
- 4:15 5. H.A.AL-JOBURI, H.AL-WANDAWI, K.A.ABULRAHMAN : Dose Assessment for Group of Workers Occupationally Contaminated with Iodine - 131 . (Iraq) .

- 4:30 · 6. A.A.MORSY, A.A.HADY : Application of PM - 555 Polymeric Nuclear Track Detector . (Egypt) .
- 4.45 7. Y.K.ABDUL AHAD, H.H.ALI, M.S.NAJI, M.M.ABDALLA :Environmental Gamma Radiation Monitoring Using TLD Around Tuwaitha Site . (Iraq) .

(Poster Presentation)

1. A.M.EID, R.M.EL-OKR : Thermoluminescence of Quartz Doped with Various Activators . (Egypt) .
2. D.K.AL-DABAGH, M.S.AL-ARIF, I.K.AL-HADED : THE Use of TLD Technique (Lif-6 and Lif-7) for Measuring and Separating Thermal Neutron Flux and Gamma Ray Flux . (Iraq) .
3. M.S.AL-ARIF : Tissue Equivalent Thermoluminescent Dosimetry Using CaSO_4 . (Iraq) .
4. M.S.AL-ARIF : Low Photon Energy Dose Distribution at Interfaces . (Iraq) .
5. N.A.S. SARHAN : Computer - Based Record Keeping of Dose Monitoring. (Iraq).
6. A.HADJADJ : Use of Pre - Irradiated Solutions in Ceric Dosimetry . (Algeria) .

RADIONUCLIDES TRANSFER AND MODELING
(Oral Presentation)

Wednesday Nov. 22, 1989 - Quite Saloon
Session 1 (9:00 AM - Noon)

Chairman : Prof. I.V.T. DUBINCHAK

Co-chairman : Dr. B.A.MAROUF

- 9:00 1. V.T.DUBINCHAK : The Interrelationship Between Residence Time and Retardation Functions for Radionuclides in the Environment : Determination of These Functions by Means of Isotope Tracer Techniques . (IAEA / Austria) .*
- 10:00 B R E A K*
- 10:30 2. B.A.MAROUF, I.K.AL-HADAD, N.A.TOMA, N.F.TAWFIG, M.A.HASOON : Radioactivity Measurements in Some Imported Food Items . (Iraq) .*
- 10:45 3. P.KULA , D.SMOLIK, K.RACLAVSKY : Recultivation of Fly - Ash Deposition and Some Problems of Heavy Metals and Radioactivity . (Gzechoslovakya) .*
- 11:00 4. A.N.SHAMSALDIN, T.H. THABIT: Theoretical Determination of the Atomospheric Cofficients y and z . (Iraq) .*
- 11:15 5. A.M.EID :Health Physics and Radioactivity in Foodstuffs . (Egypt) .*
- 11:30 6. S.H.AL-JABOURI, M.ABBAS, K.JABBAR: Radioactivity Measurements in the National Iraqi Foods.(Iraq) .*

RADIOIMMUNOASSAY
(Oral Presentation)

Wednesday Nov. 22, 1989 - Sabar Hall
Session 1 (9:00 AM - Noon)

Chairman : Dr. R.S. KAMEL

Co-chairman : Dr. Y.M. MEGAHED

- 9:00 1. J.INGRAND, J.GUERIS : Isotopic and Non- Isotopic Immunoassays : Present and Future . (France) .*
- 9:30 2. B.TODOROV, M.NICOLOVA : Radioimmunoassay Kits for Diagnosis of Bovine Leucosis Virus . (Bulgaria) .*
- 10:00 B R E A K*
- 10:30 3. Y.M.MEGAHED, A.A.M.AL-ASSAL, A.M.AI-SAIED, H.H.YOUSEF, El.S.ODA-BASHA : Hormonal Radioimmunoassay as a Prognostic Index of Threatened Abortion . (Egypt) .*
- 11:00 4. R.S.KAMEL, S.M.AL-SOUAIDY, M.K.ABDUL-MAJID : Radioimmunoassay for Free Thyroxine in Serum . (Iraq) .*
- 11:30 5. A.E.ABDELAAL, A.M.A.BORADY, H.A.M.FARGHALY : The Relation Between Ovarian Activity and Hormonal Pattern (Progesterone, T3 and T4) in Serum of Egyptian Water Buffaloes . (Egypt) .*
- 11:45 6. M.M.FATHI : Studies on the Assay of Lutropin (Luteinising Hormone) Using Immunoradiometric Assay Systems . (Iraq) .*

Thursday Nov. 23, 1989 - Gilgamish Hall
Session 2 (2:00 - 3:30 PM)

Chairman : Prof. J. INGRAND

Co-chairman : Dr. M.M.FATHI

- 2:00 7. R.S.KAMEL, S.M.AL-SOUAIDY, M.K.ABDUL-MAJID : External Quality Control Scheme for Thyroid - Related Hormones Measured by Radioimmunoassay . (Iraq) .
- 2:30 8. I.M.EL-BANNA, H.A.AL- ASRAG, M.H.GAMMAL, M.S.GODO : Development of Homologous Iodine-125 Labelled Progesterone Radioimmunoassay System. (Egypt) .
- 2:45 9. A.W.R.HAMMED, R.S.KAMEL, M.M.ATYIA, N.T.HATHAL : Development of Human Placental Lactogen Radioimmunoassay Kit. (Iraq) .
- 3:00 10. A.J.AHMED. : Assessment of Serum Cortisol in Patient with Adrenal Hypofunction and Adrenal Hyperfunction . (Iraq) .

(Poster Presentation)

1. S.A.M.ALANSSARI, M.AL-BARAZANCHI, D.D.SALIMAN : Detection of Luteal Insufficiency in Iraqi Patients Via Application of Radioimmunoassay Technique . (Iraq) .
2. A.E.ABDELAAL, M.EL-SHOUBAGG, I.T.ABDELGAWAD, R.BOALIS : Progesterone Administration During Pregnancy and Fetal Outcome in the Rat. (Egypt) .

3. S.A.HASAN, R.S.KMEL, F.H.ABBAS AND G.A.HAMED : Magnitizable Solid - Phase RIA for Human Albumin in Urine . (Iraq) .
4. R.S.KAMEL, F.M.KARIM : Magnetizable Solid Phase RIA for Cortisol . (Iraq)
5. R.S.KAMEL, F.H.ABBAS, F.J.DHAHIR : Solid Phase RIA for Testosterone (Iraq) .
6. R.S.KAMEL, F.M.KARIM, M.H.KARBON, A.K.JALHOM : RIA for Serum Triiodothyronine : Evaluation of New Commercial Kit . (Iraq) .
7. R.S.KAMEL, M.K.ABDUL-MAJEED, F.J.DHAHIR : Magnetizable Solid - Phase Fluoroimmunoassay for Thyroxine in Serum (Iraq) .
8. S.M.AL-SQUAIDY, M.K.ABDUL-MAJID, R.S.KAMEL : Development and Production of T₃ Uptake Assay With Macroaggregated Albumine (MAA) Particles as an Adsorbent Agent. (Iraq) ,

RADIOPHARMACEUTICALS
(Oral Presentation)

Tuesday Nov. 21, 1989 - Sabar Hall
Session 1 (2:00 - 3:30 PM)

Chairman : Prof. M.A.A. AL-EID

Co-chairman : Dr. M.A.A. AL-JANABI

- 2:00 1. H.M.ABDEL-DAYEM : Nuclear Medicin Among Other Imaging Modalities:
 "Competing or Complementing " . (Kuwait) .*
- 3:00 2. A.BENZAID, B.SAADA, M.OUENADA, L.DEFOUS : Synthesis, Labelling and
 Quality Control of Hippuran . (Algeria) .*
- 3:15 3. S.H.AL-KOURAISHI, A.S.AL-WARITH, A.F.JAWAD : Production of ⁹⁹mTc
 from Titanium Molybdate By Sublimation . (Iraq) .*

Wednesday Nov. 22, 1989 - Sabar Hall
Session 2 (2:00 - 5:00 PM)

Chairman : Dr. K. HAMEED

Co-chairman : Dr. K.H. NASHAT

- 2:00 4. R.M.LAMBRECHT : Cyclotron Produced Radiopharmaceuticals .(Saudi -
 Arabia) .*

- 2:30 5. M.A.A.AL-JANABI, A.H.M.KADEM. H.A.KALEEFA : Dry Distillation of ^{131}I From Reactor Irradiated TeO_2 . (Iraq) .
- 2:45 6. K.H.NASHAT, J.M.BADI : A Comparative Study on the Biological Behavior of Three IDA Derivatives Under the Influence of High Levels of Bilirubin in Blood . (Iraq) .
- 3:00 7. H.A.El-ASRAG, M.T.El-KOLALY, E.HALLABA, A.A.El-MOHTY : Preparation and Stability of Human Serum Albumin Freeze - Dried Kits for Tc-99m Labelling : Part I : Preparation of Human Serum Albumin Freeze - Dried Kits . (Egypt) .
- 3:15 8. H.A.El-ASRAG, M.T.El-KOLALY, E.HALLABA and A.A.El-MOHTY : Preparation and Stability of Human Serum Albumin Freeze Dried Kits for Tc-99 Labelling, Part II : Stability of Human Serum Albumin Freeze Dried Kits : Non-Irradiated and Gamma -Irradiated Kits . (Egypt).
- 3:30 B R E A K
- 4:00 9. M.A.AL-EID, R.A.AL-ATTAR, S.A.AL-MAHDI: Post Radioiodine Therapy Scans Versus Diagnostic Radioiodine Scans in Detection of Thyroid Cancer Metastases . (Iraq) .
- 4:15 10. O.HLDIK, G.BERNHARD, W.BOSSERT, D.NOVOTNY. G.WAGHER, R.MUNZEN , G.J.BEYER : Fission ^{99}Mo - $^{99\text{m}}\text{Tc}$ - Generators Isotope Production Technology of the CINR . (GDR) .
- 4:30 11. A.OWUNWANNE, S.SADEK , H.M.ABDEL-DAYEM : Experimental Animals for Studying the Use of Radiopharmaceuticals for Detection and Localization of Gastro-Intestinal Bleeding Site in Sheep.(Kuwait).

4:45 12. A.H.ELGAZZAR : Pulmonary Scintigraphy in the Diagnosis of Pulmonary Emboli . (Kuwait) .

Thursday Nov. 23,1989 - Gilgamish Hall
Session 3. (9:00 AM-Noon)

Chairman : Dr. F.AL- SAMARRAEI

Co-chairman : Dr. S.H. AL-QUORAISHI

9:00 13. M.IIO : PET SPECT MRI and MRC in Japan . (Japan) .

10:00 B R E A K

10:30 14. F.HELUS, W.MAIER-BORST : Cyclotron Radionuclides Production and Cyclotron Targetry . (W.Germany) .

11:00 15. A.OWUNWANNE, A.SHIHAB-ELDEEN, S.SADIK, H.M.ABDEL-DAYEM :
Application of Radiopharmaceuticals to Study Drug Toxicity in
Experimental Animals. (Kuwait) .

11:15 16. N.H.AGHA, A.M.AL-HILLI, I.F.ALWAN, M.A.AL-EID, F.K.BASS, A.S.
AL-NIAMI : Clinical Evaluation of ^{99m}Tc - Detran and ^{99m}Tc -Sulfur
Colloid for Lymphoscintigraphy . (Iraq) .

11:30 17. B.SAADA, M.HAMILTOUCHE, A.BENZAID : Preparation of Human Serum
Albumin Microspheres for Lung Perfusion Studies . (Algeria) .

11:45 18. A.OWUNWANNE, S.SADEK, C.PALMER, A.H.ABDEL-DAYEM : Nuclear Medicine
Technology Training Programme in Kuwait . (Kuwait) .

(Poster Presentation)

1. M.A.A.AL-JANABI, S.K.KHACHADOORIAN : The Production of Tc-99m by Solvent Extraction.(Iraq) .
2. H.M.A.KARIM, A.K.JABBAR : Preparation and Quality Control of Tc-99m Sn-phosphate - CMC Stablized CMC Stablized Colloid for Bone Marrow Studies . (Iraq) .
3. S.A.AL-KOURAISHI, M.E.ZIA, H.HASSAN : Labelling of D, Penicillamine with Tc-99m and Biological Distribution . (Iraq) .
4. M.A.A.AL-JANABI, H.A.KALEFFA, E.H.ABBAS : The Increase of Radioactive Concentration of NaI -131 Using Alumina Column Chromatography and Ion Exchange Techniques . (Iraq) .
5. M.A.AL-JANABI, S.K.KHACHADOORIAN , S.O.MOUSSA,Z.M.YOUSIF : Preparation of In- 113m and Tc-99m - Microaggregated Human Serum Albumin for Liver Scanning. (Iraq) .
6. A.M.AL-HILLI, K.S.MIRZA, H.A. MUHAMMED : Labelling of Galacturonic Acid with Tc-99m and Investigation of the Biokinetic Behavior. (Iraq) .
7. M.E.ZIA, S.H.AL-QUORAISHI, A.K.JABBAR, H.H.SAMAWI, H.N.BORZAN: Binding of Tc-99 (Tc-99m) - Cysteine to Serum Albumine. (Iraq) .
8. M.A.A.AL-JANABI, A.H.M.KADEM : Radiochemical Separation of I-131 from Irradiated Natural "U" and TeO₂ by Solvent Extraction Using Dibenzo-18-Crown-6 . (Iraq) .

9. N.D.DAHIR, S.R.HESSLWOOD, D.B.JACK : Preparation and Protein Binding of Pentavalent Tc- DMSA . (Iraq) .
10. Y.SHAFIQ, M.H.S.AL-HISSONI, M.A-JASSIM, M.A.ABDEL-AZEZ, A.M.AL-HILLI : Evaluation of Different Commercially Available Sulphur Colloid Kits used for Liver Scanning . (Iraq) .
11. A.H.ELGAZZAR : The Use of Gallium - 67 and Indium -III WBC in the Localization of Abdominal Infection . (Kuwait) .

INDUSTRIAL APPLICATIONS

(Poster Presentation)

1. *M.A.ABUIRJEIE, A.A.ABDEL AZIZ, M.E.ABDEL - HAMID : Feasibility Studies on Radiation Sterilization of Cephradine . (Jordan) .*
2. *Z.IDIRI, L.OMARI : 14 MeV Neutron Activation Analysis of Chicken Dung and Dates : Simultaneous Determination of N, Mg, Al, Si, P, CL, Ca and Fe. (Algeria) .*

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